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CLINICAL LECTURE.

MALIGNANT DISEASE OF THE PELVIS IN A GIRL UNDER FIFTEEN YEARS OF AGE.—OPERATION.¹

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Gentlemen: To-day I have a case for operation. We have been preparing the instruments while the patient is being etherized. I have in this tray fifteen of the smaller hemostatic forceps and four of the larger. These numbers have been written down on a piece of paper. In addition, I have one knife, one teneculum, one grooved director, scissors, aneurism needle and a needle holder. These I do not put down, because they are invariably present, and they are not likely to get into the abdominal cavity. We have also marked down the number of sponges which we have. There are nine. It is very important to keep the record of these articles, for I have collected some thirty cases in which a sponge or a forceps has been left in the abdomen. I shall not soon forget the great distress and anxiety I had after an operation some years ago. I went into the country to perform an ovariotomy, and having no skilled assistant I had to supervise everything. I thought I had the number of sponges impressed upon my mind, but after the operation was over I had forgotten their number, and I was unable to say whether I had all the sponges or not. All that night on the train I was kept awake by my anxiety in regard to this point. I knew that when I got home I should be able to tell by the number of sponges which remained in their jar. On arriving, I was

greatly relieved, indeed delighted, to find that I had them all. Since then, I always make it a point to write the number down.

Here is the patient, a girl not yet fifteen years of age. Last January she noticed that she was larger than she should be. Menstruation has gone on regularly. I happened to be in the town where she lived, to perform an abdominal section, and her physician asked me to see her. I examined the case carefully, and made up my mind that she had a tumor, which probably was malignant. Of course the question of pregnancy was not overlooked. I examined the breasts, vagina and cervix uteri carefully. I found the hymen present. But that would not exclude the idea of pregnancy; for there are many cases on record in which a hymen has been unruptured, with perhaps only a pin-hole opening, and yet pregnancy has occurred. Day before yesterday I examined her with the sound, and found the womb absolutely immovable. It is pushed against the pubic bone on the left side and flattened. The tumor comes into the vagina as far down as Douglas's pouch, so that I am afraid we have pelvic adhesions. It perhaps is an intra-ligamentary cyst that has formed between the layers of the broad ligament. Such a tumor as this cannot escape upward; and it grows downward, dissecting off the peritoneum from the pelvic cavity. In these cases of apparently firm fixation from adhesions, however, I have sometimes been agreeably disappointed. I have found that the tumor was retained in the pelvis simply by the suction from close contact with the pelvic walls. When boys, you have seen heavy stones lifted with a wet piece of round leather to which a string was attached. The wet leather is pressed upon the stone and is kept in firm contact with it by atmospheric pressure through the vacuum under the leather. This is sometimes the case with these tumors. They are held down in the pelvis by this kind of suction and not by

¹Delivered at the Hospital of the University of Pennsylvania.

adhesions. Fearing, however, that we may meet with bad adhesions I have the Paquelin cautery ready, and have asked Dr. Taylor to supervise it. The abdomen has been thoroughly cleaned, and scrubbed, and washed with the antiseptic solution.

There is evident fluctuation in this tumor, which is irregular in shape. After estimating the thickness of the abdominal wall by grasping it between my fingers, I make the incision. I do this boldly, because I am sure that there are no intestines in front of the tumor. Reaching the recti muscles I search for the line of junction and at once come down upon the *præ-peritoneal* fat. Checking the bleeding with forceps, I raise the tissue with two other forceps, and open it by cutting between them. Then I come to another layer, which I catch up and incise in the same way. This opens the peritoneal cavity and exposes the tumor, which has the appearance of a malignant growth. As it is evident that we shall have bleeding, I enlarge the abdominal incision freely, in order to have working room. The walls of the tumor are extremely thin, and the least manipulation causes them to burst; and you see that the thick substance which is escaping resembles cerebral matter. To the upper portion the omentum is attached. This I separate and catch temporarily. Here is the left Fallopian tube spread out over the growth. As I try to turn out the tumor it breaks at every point. The growth involves the whole broad ligament, and it is very difficult to detach it. In order to get rid of the attachment of the omentum at the upper portion of the tumor, I tie it *en masse* and cut it off. I never met with a growth exactly like this before. The whole broad ligament is the seat of disease, and the bleeding is very free. The diseased mass is probably malignant, for it extends down deep into Douglas's *cul-de-sac*, and has attacked the pelvic walls so that it is impossible to remove it wholly. All that I can do is to check the alarming bleeding and remove as much of the growth as possible. It will be necessary to insert cobbler's stitches across the whole extent of the broad ligament. This I do, tying the stitches at short intervals. The womb also is implicated and it will have to be removed. This is done by transfixing the cervix, tying it on either side by a double ligature, cutting off the uterine body, and then sewing the edges of the stump to one another by gut sutures.

Considering the nature of this disease and

its extensive ravages, it is surprising how little this girl has suffered.

As you see, her condition is a very serious one, for the shock has been great. Her pulse is extremely weak and there is great danger of her dying on the table. We have been giving her hypodermic injections of strychnia and digitalis. Had I known beforehand what would have to be encountered I should not have operated; but having begun, I was forced to continue. I irrigate the abdominal cavity thoroughly and insert a drainage-tube and close the abdomen. I have been fortunate in controlling the bleeding so easily. These are the cases in which it is sometimes necessary to pack the abdominal cavity with gauze and to leave it there for several days.

The whole back portion of the uterus has been eaten away by the disease. It looks as if gnawed by rats. The omentum, broad ligament and pelvic tissues are also involved. This is the first time that I have ever removed a womb by abdominal section for cancer of its body. I have extirpated the whole organ *per vaginam*, but that is altogether a different operation. The disease in this case probably began in the ovaries, for I came across a cyst which had the mother-of-pearl appearance found only in ovarian tumors. I performed the operation with all the ordinary care and precaution; but I do not see how it is possible for this girl to get well, although she may possibly recover from the operation. This, however, is even doubtful, for she has lost much blood and is fearfully collapsed, and may die in a few minutes.

You may ask me, Did I ever lose a patient on the table? Yes; I once had that misfortune. Some years ago I was called to a distant town to see a woman with cancer. While there, the physicians present told me that there was in the town a poor school teacher who had been bed-ridden for months, with obstinate constipation and vomiting, caused by the presence of an abdominal tumor. She was frightfully weak, and emaciated and bed-ridden. I found that she had two ovarian tumors, and also a bad stricture of the rectum. I promised that if the physicians would dilate the stricture and thereby get her into better shape, I would come and remove the tumors, although it was a very hazardous case, and that, in her weak condition, if the cysts were adherent she would most likely not recover from the operation. Well, after the

lapse of six or more weeks the physicians wrote to me that the vomiting had been checked to some extent, and that her general condition was better. I therefore went up and performed the operation, although she was still dreadfully weak. Only one of the gentlemen had ever seen an abdominal section before, and they all watched the operation with a great deal of interest, and I, not having a skilled assistant, was equally intent. The tumors were removed after a somewhat serious operation, and I was congratulating myself that everything had gone along so well, and had indeed begun to sew up the wound, when the physician who was giving ether said that the patient had stopped breathing. We tried in vain to resuscitate her. She was dead, and we were all greatly shocked. Then came up the question who should inform the family, and the two attending physicians begged me to do it. I broke the bad news as gently as I could, but it was a hard task, the hardest I ever undertook. In a small country town bad news travels fast, and when we left the house we were buttonholed at every corner and had to repeat the sad story over and over again. Naturally, I did not feel like remaining in the town any longer than was possible, but there was no train until evening; so I telegraphed to the main office of the railroad company and asked the head official to let an express train stop for me, early in the afternoon, which he was kind enough to do. But while waiting for it at the station, I had to go over the story again to some bystanders. One of the attending physicians was a man weighing some two hundred and fifty pounds. A few weeks after the operation his wife wrote to me, stating that her husband's health was failing, and she described his symptoms, which were those of diabetes. I told her to get some of his urine without his knowledge, and send it to me. This was examined and found to contain sugar. I therefore wrote to him, explaining what we had done, and advising him to consult a specialist. He did so, but got no better. Finally he went to a warmer part of the country and stayed there, struggling desperately to live, but he finally died. I believe that he had had a latent tendency to diabetes at the time of the operation, and that the shock of our patient's death developed it at once.

Some years ago a well-known English surgeon came to this country, apparently well. While in this country he received a

terrible mental shock, and at once his health went down. Albumin, I think, was found in his case; but I am not sure whether it was albumin or sugar. He continued to fail, and that so rapidly that he died at sea while on his way home.

I do not recollect having had any other patient die on the table, but we have had some very close calls. The woman on whom I operated last Friday in the ward class came very near dying on the table. We had to stop twice during the operation, which was undertaken for the removal of a pus sac. The patient was greatly reduced and had a high temperature with a pulse of 130. After the operation the temperature came down, and since the operation it has not been over 99°.

I do not think that this girl will live over forty-eight hours, for in her condition, reduced as it is by a malignant tumor, she probably has not a sufficient amount of vitality to react. I shall at once begin to give her nourishment by the bowel, with small doses of whiskey by the mouth. I order whiskey, because we cannot nowadays get decent brandy. All the brandy in this country is a manufactured article. You can, however, get pure whiskey, if you pay enough for it. I shall give teaspoonful doses every fifteen minutes until reaction sets in. I put in at the lower angle of the wound a glass drainage-tube, and it will be examined every half hour. If there is bleeding, I shall inject a little diluted Monsel's solution. I have never had to resort to this styptic in this way, but it is a proper thing under certain circumstances. I have stitched the stump of the uterus to the lower angle of the wound. I use the drainage-tube, because with this malignant tissue in the pelvis we are almost certain to have septic trouble if the patient lives forty-eight hours. Whatever the result may be I shall inform you.

Two weeks later the patient was again brought before the class, and Dr. Goodell made the following remarks.

This is our patient of two weeks ago. She has gained in flesh and in color since the operation, and is, in fact, a great deal better than before it. The glass drainage-tube has been removed and has been replaced by a rubber one. To-day I wish to see if we can remove this. There has been considerable discharge. I shall also remove the stitches that secure the uterus to the lower angle of the wound. The reason that the drainage-tube has been kept in so long, is

the fear that the discharge from the diseased tissues left behind would set up septic trouble. I may be mistaken in regard to this being malignant disease, for she has improved far more than I should have expected. I have, however, repeatedly seen in cases of cancer of the breast, where the disease has been removed and a clean wound substituted for the large sloughing wound, great improvement follow. I have seen the same thing in cancer of the womb where, by removing the neck, or the womb itself, or by curetting, the patient will greatly improve, because the hemorrhage has been stopped and there has been removed temporarily, at least, the source of the chronic blood poisoning. After such an operation the appetite often improves wonderfully, the color comes to the cheeks and the patient and her friends may think that she is cured; but after a time the disease returns anew in the old locality or in adjacent organs. It will, therefore, not do to trust too much to the appearances of the patient. We shall now have her removed.

A gentleman has just handed me a note, in which he said that he and Dr. Formad examined portions of this growth and found it to be a round- and spindle-celled sarcoma. That leaves no doubt about it, and acting on this information I shall take out the drainage-tube and allow the wound to heal. For, if it heals up, the development of the growth will be inside and therefore unseen, instead of outside, through the opening.

I once learned a lesson in regard to this point. I removed a malignant growth and left the drainage-tube in a long time. The result was that at the reproduction of the disease it burst through the opening, making a horrible mess and stench. I do not think that it hastened the death of the patient, but it made everything unpleasant around her. Her friends, of course, attributed the bursting forth of the carcinoma to the operation, and, as they were ignorant people, it was almost impossible to make them understand the cause of the trouble.

PILLS OF IRON PROTOCHLORIDE.—In a paper read before the Edinburg Chemists' Assistants Association, Mr. John Finlay stated that the following combination yields satisfactory results, barring the size of the pills: Ferrous chloride, anhydrous, grs. 3; glycyrrhiza, gr. 1; extract of glycyrrhiza, gr. 1. To make one pill.

COMMUNICATIONS.

MEMBRANOUS CROUP.¹

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"The term pseudo-membranous laryngitis, laryngo-tracheitis, or true croup, is applied to a common and fatal disease, the essential anatomical character of which is inflammation of the larynx, or of the larynx and trachea, with the formation of a pseudo-membrane upon its surface."² A generation ago this was a common disease. It is occasionally met with at the present time, but most of the cases that we now see are, strictly speaking, laryngeal diphtheria.

Etiology.—It is now held by some of our highest authorities that membranous croup and laryngeal diphtheria are identical. Thus Northrup³ tells us that "He believes it is not possible in the present state of our knowledge to separate purely local croupous laryngitis from laryngeal diphtheria of mild type," and that "it seems advisable, therefore, to consider all cases of pseudo-membranous laryngitis not of traumatic origin, as local manifestations of diphtheria, and base the treatment on that diagnosis." From this opinion I feel obliged to express my dissent. Jacobi also says: "In former times which are unknown to the younger generation of physicians, when no such epidemics [of diphtheria] existed, the only form of diphtheria occurring now and then, was the local laryngeal diphtheria called pseudo-membranous croup. It was then a rare disease, while at the present time it is of but too frequent occurrence." This statement I regard as misleading. Membranous croup was not in former years so very rare. In 1858,⁴ the year assigned by Jacobi as the time when diphtheria first made its appearance here—and I may add that but five cases of death from this disease were reported that year in New York—there were 478 deaths reported from membranous croup. In 1859 there were reported 622 deaths from membranous

¹ Read before the Ulster County Medical Society, December 9, 1890.

² J. Lewis Smith.

³ Keating's *Cyclopaedia of the Diseases of Children*, vol. ii, p. 521.

⁴ Pepper's *System of Medicine*, vol. iii, p. 101.

⁵ Vide article Membranous Croup, by J. Lewis Smith, *Transactions New York State Medical Association*, vol. i, p. 432.

croup, which exceeds by 127 the average number of deaths per year reported from diphtheria, from 1860 to 1873. If the membranous croup of those days was, as Jacobi asserts, nothing more or less than local laryngeal diphtheria, why was it not contagious? Why did the diphtheritic process invariably begin in the larynx and remain there? Why did the constitutional symptoms of diphtheria, the septic poisoning, the enlarged glands, etc., never appear? Why were none of the sequelae of diphtheria ever observed? In short, if it was the poison of diphtheria that gave rise to the membranous croup of that time, how shall we explain the fact that it never gave rise to general diphtheria, but invariably manifested itself as a localized disease of the larynx? Northrup states that of the autopsy records of one hundred and fifty-one cases of laryngeal diphtheria, in only one case was the membrane found in the larynx *only*, and he further remarks¹ that "The melancholy fact that but one case had diphtheria of the larynx *only*, stands out as a grim reminder of the tendency of the lesion to invade the regions adjoining it above and below." In former years this "tendency of the lesion to invade the regions adjoining it above and below" was not observed. How shall we explain this if the disease was the same as we now see it?

If there was once a disease called pseudo-membranous laryngitis that was produced by other causes than the diphtheritic virus—which I think few will be disposed to deny—then there is now a pseudo-membranous laryngitis distinct from diphtheria. "It is well, therefore," as J. Lewis Smith forcibly remarks, "to briefly recall the evidences that croup in a certain proportion of cases results from causes other than diphtheria. The occurrence of croup in localities where diphtheria is unknown of course indicates the operation of some other agency than the diphtheritic poison." Therefore I maintain that, before diphtheria became epidemic or endemic in this country, there must have been some other cause for the membranous croup which prevailed at that time.

In this, as in most other diseases, there exists a predisposing and an exciting cause. The chief predisposing cause is heredity: the truth of this is beyond cavil. Croup, as the phrase goes, runs in certain families from generation to generation. This is as well known among the laity as the profession.

The common exciting cause (exclusive of the diphtheritic form) is exposure to cold. Standing by an open window with insufficient clothing on a windy day, seems frequently to be the starting point of an attack of croup. This is the history in so many cases that the relation of cause and effect seems almost equivalent to a demonstration. It occurs most often between the ages of two and seven years. The anatomical conformation of the larynx in childhood, together with a peculiar susceptibility at this age, seem plausible reasons for its greater frequency in the young. One attack seems to predispose to others.

Symptoms.—In diphtheritic croup we usually find the symptoms characteristic of general diphtheria. In the majority of cases the membrane appears first in the throat, and from there descends into the larynx. It is held by some that in the so-called uncomplicated cases the membrane is confined to the larynx—starts there and stays there. This is possible but it must be exceedingly rare, for Northrup, who avows himself a unicist in this matter, is able to show but one case of this kind in his statistics. He gives the autopsy records of one hundred and fifty-one cases of laryngeal diphtheria, and states¹ that "in fifty-eight cases diphtheria of the pharynx antedated the laryngeal symptoms, and in nearly all other cases, the number not being determined, membrane appeared sooner or later in the pharynx. In eighty-eight cases there was evidence that the membrane made its appearance first in the larynx, or at the same time as in the pharynx. In only one case was it in the larynx only." The admission, "or at the same time as in the pharynx," robs this statement of much of its value as evidence that the laryngeal affection was the primary one. When true diphtheritic membrane appears in the throat the question of diagnosis is settled once and for all.

I wish to remark here that the classical description of croup, as well as of some other diseases, notably typhoid fever, is no longer to be trusted as absolutely correct. The truth of this statement will be made apparent as we proceed with the symptomatology.

Case 1. This occurred in my own family. Boy, two years and three months old, was taken suddenly about 12 o'clock Monday night, December 20, 1886, with a harsh,

¹ *Loc. cit.*, p. 528.

¹ *Loc. cit.*, p. 525.

croupy cough, slight fever and dyspnoea. I gave him small doses of syrup of ipecac and paregoric, and in less than an hour the attack passed over and he fell asleep and slept till morning. I considered the case one of spasmodic croup, and felt no uneasiness regarding it. It is proper to state also, in this connection, that the child had suffered the previous week from a cold and a slight sore throat—with no symptoms of diphtheria, however,—and had so far recovered that no treatment was required for a day or two before the attack of croup. The next day, December 21, he seemed better, but not entirely well. The pulse was slightly accelerated, but the temperature was normal. Towards night slight hoarseness appeared, but the child was up and dressed, playing around the room. On the 22d, the patient grew worse: he could no longer speak clearly and distinctly, and the peculiar nervous symptoms began to manifest themselves, still no fever appeared, the temperature was taken regularly and it remained normal throughout; the pulse was somewhat increased in frequency; the dyspnoea gradually increased, cough became hoarse, not harsh as in the beginning; voice steadily grew weaker. The throat was normal, frequent and thorough examinations showed no membrane or patches *at any time*. On Friday morning, the 23d, dyspnoea became the prominent symptom, attacks of suffocation came on, cyanosis increased till the lips became blue, and the fingers and face dusky. About six p. m. tracheotomy was performed, without an anaesthetic, as the child was semi-unconscious. The operation was rapidly and skilfully done, the child began to breathe naturally as soon as the tube was inserted, and in a few minutes took a drink of water. He slept well all that night, the tube required cleaning but few times till morning, when it began to clog badly. The false membrane descended into the bronchi, and the child died from suffocation at 1 o'clock Sunday. I deceived myself in this case by supposing—as I had been taught to do—that because there was no fever there was no inflammation, and, logically, if there was no inflammation there could be no exudation with false membrane. I now know what I did not know then, that the formation of false membrane in the larynx in some cases at least takes place without fever.

There were no cases of diphtheria in the neighborhood, the child had not been exposed to that disease, and no case occurred

afterwards among any of those who were with him. On two occasions, when the tube became stopped up and the little fellow seemed on the point of suffocation I applied my lips to the tube and cleared it by suction. If the case had been one of diphtheria I certainly would have contracted the disease.

Furthermore, three other physicians of large experience saw the case and there never was any question as to the diagnosis. The medical treatment was the routine one of calomel, potassium chloride, emetics, alkalies, fumigations, etc.

Croup commonly begins gradually and insidiously, but there are many exceptions to this rule. The so-called prodromic symptoms are by no means invariably present. These symptoms, upon which great stress has been laid by some writers, consist of slight cough, with the other evidences of nasal, pharyngeal and laryngeal catarrh, with perhaps slight fever, although this is often so slight as not to be detected unless special attention be directed to this symptom. This condition may last two or three days or a week in some cases before the attack of croup is ushered in. This usually takes place in the night somewhere between nine and twelve o'clock, when the child is suddenly roused from his sleep with a loud ringing cough. At first it is short and sharp, but it soon becomes hoarse, and gradually grows weaker and less barking. The voice is also changed; it is hoarse and whispering, and gradually grows weaker and fainter as the disease advances, until it becomes wholly suppressed. The characteristic croupy respiration is present from the onset. Gradually inspiration becomes stridulous. At first expiration is short and harsh, later on it becomes stridulous also. The breathing now becomes somewhat quickened and symptoms of nervousness and extreme restlessness appear. The dyspnoea steadily increases, with occasional attacks of suffocation, from which the little patient emerges to struggle on a little longer. . . . Inspiratory recessions now take place at the supra-sternal notch and the supra-clavicular regions. The soft parts also yield at the epigastrum. Cyanosis now comes on, the blood is no longer fully aerated and the lips become blue, the fingers and face dusky. Death takes place from strangulation, sometimes ending in convulsions and stupor.

Diagnosis.—The diagnosis of membranous croup from laryngeal diphtheria presents no difficulties when the latter occurs

complication of general diphtheria; it is only in those cases where the diphtheritic inflammation manifests itself exclusively in the larynx that we feel doubtful as to its true nature. Is it possible, then, to distinguish pseudo-membranous croup from laryngeal diphtheria? I believe that it is in some cases, but not always. If a child have croup after exposure to diphtheria, but with no symptoms of that disease, further than the laryngeal disorder, we are warranted in calling it diphtheritic: further, if a child die with croup without known exposure, and with no other symptoms of diphtheria, and shortly after other members of the family are attacked with unequivocal symptoms of diphtheria, we are also warranted in believing the first to be diphtheritic; but, *per contra*, if a child have a similar attack of croup and no other member of the family suffer, there being no history of exposure, and no epidemic prevailing in the immediate locality, I believe we are warranted in excluding the diphtheritic virus as the cause of the croup. The case cited above illustrates this point.

The points, then, in favor of diphtheria, are known exposure to this disease, or prevalence of an epidemic; albumin in the urine; prodromic symptoms adynamic. If favor of croup: lack of exposure, no epidemic prevailing; no albumin in the urine; prodromic symptoms not adynamic.

The ablest practitioners, however, admit the impossibility of making a positive diagnosis in all cases.

It is sometimes quite difficult to distinguish between membranous and catarrhal croup. Membranous croup usually begins gradually, although there are exceptions to this rule as illustrated in the case reported above. Spasmodic croup, that is, the attack proper, invariably comes on suddenly and unexpectedly, and in the great majority of cases in the night.

The severe symptoms of membranous laryngitis may first appear in the daytime. The pulse is of no value in the diagnosis; the excitement occasioned by an attack renders it absolutely worthless as an indication of fever *per se*. The temperature, on the contrary, is of the utmost importance, and should always be taken. The fever, in my opinion, is the most important symptom in the diagnosis. The older writers all tell us that membranous croup is attended with fever, and that in spasmodic croup it is mostly absent. This is one of the points

in the differential diagnosis. In support of this statement I quote from Niemeyer who is usually very accurate in his descriptions. He says,¹ of the diagnosis, that "dyspnoea is rare in laryngeal catarrh, and is never persistent, nor is there much fever, while in croup, fever never fails." Now, as a matter of fact, this statement is almost exactly the reverse of the truth. To Dr. Jacobi belongs the credit of setting the profession right in this matter. He tells us, in positive terms, that catarrhal laryngitis in the child is a febrile disease. He also says² that uncomplicated sporadic croup has no increase of temperature or very little; catarrhal laryngitis is mostly attended with high fever. In very many cases this symptom has guided him safely, in spite of the statements of the books. "There is no fever or very little except in the cases of generalized diphtheria." My experience confirms this view. A case of croup developing suddenly at night, with high fever and flushed face, is almost surely catarrhal. Furthermore, in catarrhal laryngitis, the hoarseness (aphonia) and harsh croupy cough come on abruptly, and often subside in an hour or less, although in some cases the attack may last much longer—but sooner or later comes a decided remission. The child is pretty certain, however, to have a fresh attack the following night, just as sudden as the first. Neither the frequency of relapses nor the history of previous attacks of catarrhal laryngitis warrant us in assuming the catarrhal nature of an individual case, for quite frequently we meet with cases of true membranous croup in children who have experienced many attacks of catarrhal laryngitis.

Age also has some bearing on the diagnosis. Membranous croup is rare under one year, while, according to Jacobi,³ twenty per cent. of all the cases of spasmodic croup met with are under one year.

When laryngitis is the principal element in the attack, hoarseness may remain for several days, but this of itself does not signify much. The totality of the symptoms, as the homoeopaths say, is of great importance in discriminating between catarrhal and membranous croup. "In the latter," as Jacobi⁴ ably maintains, "the main symptoms—viz., stenosis, hoarseness (or aphonia)

¹ *Text-Book of Practical Medicine*, vol. i, p. 25.

² *Pepper's System of Medicine*, vol. iii, p. 95.

³ *Loc. cit.*, p. 93.

⁴ *Loc. cit.*, p. 95.

and cough—will mostly develop simultaneously and in equal proportion; the unproportionality of the symptoms—for instance, much stenosis and cough, but little hoarseness, or barking cough and hoarseness with little stenosis—would speak for catarrh." Laryngismus stridulus is made synonymous with spasmodic croup by some writers. This is much to be regretted, as it tends to needless confusion. Membranous croup is easily distinguished from this affection. Laryngismus stridulus is not inflammatory, but purely spasmodic. It is attended with great dyspnoea or momentary suspension of respiration, without fever or cough. Furthermore, laryngismus stridulus is a rare disease in this country as compared with either catarrhal or membranous croup.

Prognosis.—The prognosis is unfavorable in the mildest cases. Diphtheritic croup has been said to be the most fatal disease to which childhood is exposed, and true membranous croup in infants and young children is equally fatal. The rate of mortality is very high. Authorities differ widely as to percentage: some, as Jacobi¹ and Mackenzie,² set the death-rate, without operation, at ninety per cent. On the other hand, J. Lewis Smith,³ Meigs and Pepper⁴ and Agnew,⁵ believe that recovery without operation is more frequent than has commonly been supposed. According to Lovett and Munro,⁶ the experience at the City Hospital (Boston) has been as follows: forty cases of diphtheritic croup have been treated medically and every one died. Dr. G. W. Gay, visiting surgeon, wrote, in 1885:⁷ "Not a single case of pseudo-membranous laryngitis ever recovered in this hospital without operation." And he quoted Dr. D. W. Cheever, senior visiting surgeon, as writing to him in 1884:⁸ "After reflection, I cannot recall a case of membranous laryngitis that I have known to recover without tracheotomy." Since Dr. Gay's article was written there have been two recoveries from moderate dyspnoea without operation. I have seen one case of diphtheria with croup as a complication—where the voice was

faint and husky, with decided dyspnoea, in a girl five years of age—recover with medicinal treatment alone. I have also met with one case of membranous croup—judging from the almost complete extinction of voice, which at first was hoarse and feeble, together with the dyspnoea—in a girl six years old, which recovered without tracheotomy.

In diphtheritic croup much depends on the type of the epidemic. When laryngeal symptoms appear early, the attack is apt to be more severe than when they occur in the declining stages. The younger the age the higher the mortality; for the younger the child the smaller the windpipe and larynx, and the sooner stenosis results. Unfavorable symptoms are increasing debility and cyanosis, feeble and irregular pulse; also the development of bronchitis or bronchopneumonia. When emetics fail to act, or spontaneous emesis takes place, the case is generally hopeless. Among the favorable indications may be mentioned loosening of the cough, increase of expectoration and freer respiration.

Treatment.—The medical treatment of the present day is practically the treatment for diphtheria, since that disease is responsible for a large proportion of the cases of croup. The use of mercurials is advocated in all forms of membranous laryngitis. The bichloride of mercury is the preparation advised by most writers in as large doses as are warranted in each particular case. From one-sixth to one grain, in divided doses well diluted, is given during the twenty-four hours. Calomel is preferred by some as being just as efficacious and safer. The tincture of the chloride of iron is still a favorite with many practitioners. Potassium chlorate is condemned by most modern authors as being injurious to the kidneys. Formerly alkalies were much employed in the treatment of croup, for their supposed solvent action on fibrin (antiplastics of the older writers). Now, however, except in the form of inhalations with the atomizer, they are rarely prescribed. In diphtheritic croup I have obtained the best results from sulphur applied topically by insufflation and administered internally in small doses frequently repeated.

Unfortunately but few cases yield to medicinal treatment. Nothing then remains but resort to surgical measures.

We now have the choice of tracheotomy or intubation. The proportion of recoveries

¹ Loc. cit., p. 103.

² Diseases of the Throat and Nose.

³ Diseases of Children, Philadelphia, 1881; also Am. Jour. of Med. Sci., April, 1885, p. 319.

⁴ Diseases of Children.

⁵ System of Surgery, vol. iii.

⁶ Amer. Jour. of Med. Sci., July, 1887, p. 166.

⁷ Gay, quoted by Lovett and Munro. *Ibid.*

⁸ Quoted by Gay: *Med. News*, July 12, 1884.

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after tracheotomy, according to Wharton,¹ is about one in every four cases. Intubation gives about the same, Waxham² placing it at 26.77 per cent.

MEDICAL JURISPRUDENCE OF RAILWAY SURGERY.

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When a suit is brought, the railway surgeon, according to my observation, is placed at a disadvantage in two ways; first, his testimony as an expert is always lessened in its effect by the question, "Are you an employee of the road?" Then again his loyalty to his principals, and his not infrequent detection of malingerers, place him in an attitude of "expectant attention," and he sees in every claimant not presenting palpable deformities a fraud and cheat. That this picture is not overdrawn will be apparent to most physicians who have devoted special attention to the practice of medical jurisprudence, and that it is one frequently accompanied by a large verdict for the plaintiff is a common experience. The railway surgeon should, I think, assume in all these cases that the person is injured and by demonstration and reasoning convince himself to the contrary if the facts warrant it. It has always been my custom when acting for the plaintiff in such cases to assume that the person was not injured and then by a chain of reasoning or direct observation to convince myself if possible of the contrary. I have so far always been able to make such conclusions effective on the witness stand. The human mind is so constituted that we cannot be too careful in eliminating unconscious bias, which at times may be apparent to every individual in a crowded court room, excepting its unfortunate but honest possessor.

The qualifications that a railway surgeon should possess have enormously augmented within a few years. It is but a short time since anatomy, operative surgery, and a modicum of pathology was about all that was needed. In too many instances the older railway surgeons have not advanced beyond this, and

appointments are still made upon these lines. There never was a time in which extensive knowledge of pathology and internal medicine was more needed by the railway surgeon. It is precisely upon these lines that I have seen the most unfortunate results, in that the decision of the railway surgeon enforced a long litigation upon the plaintiff and usually resulted in the railway company paying a sum vastly in excess of what the case could have been settled for originally. In the majority of cases a meritorious case can be settled for much less than will be awarded by the average jury and the plaintiff will be saved vexatious litigation.

It is apparent that injuries which cause gross visible defects will never form any considerable part of this kind of litigation. The loss of a hand, leg or eye will and must always be measured in damages by the jury. The cases in which the judgment will turn on expert opinion will be those in which the injuries are obscure, to internal organs or deep-seated joints, in which the conditions must be inferred from objective and subjective symptoms; those in which the clinical picture will be the guide in reaching a diagnosis. Injuries to the nervous system will far outnumber those of other tissues and organs, and in the difficulty of their medico-legal diagnosis (to coin a phrase). It is in this class of cases that the railway surgeon seems to be most deficient. So-called spinal concussion has furnished a fruitful field of contention in railway medical circles and the deliverances upon this subject has not been altogether what could have been hoped for scientifically. It is not surprising when a railway surgeon is invited to meet a colleague in an examination to have the former request the patient to bend the body, stand upon one leg, balance his body with the eyes closed; then to percuss the spine, tap the patellar-tendon and announce that the examination is closed. When a surgeon who is accustomed to this kind of work has a deliverance upon spinal concussion, is it matter for wonder that the medical world is not impressed? So far as my own experience extends I have never met a railway surgeon at one of these examinations who was provided with an ophthalmoscope or an electric battery, nor have I seen a complete examination of the sensibility or of the reflexes made by a railway surgeon even when every opportunity was given.

The necessity of the railway surgeon being an "all round" man in the best sense

¹ *Kating's Cyclopadia*, vol. ii, p. 544.
Quoted by Northrup. *Ibid.*

of the word is now more than ever apparent. Within a few years the testimony of experts consisted in stating his experience, qualifications, knowledge and opinion of the particular case. Now he is called upon to defend this opinion in the face of a cross-examiner, who may be equally or even better posted on the exact points at issue than he is himself.

It is a matter of experience that suits against corporations for personal injuries have increased greatly in the last few years and the amounts recovered have been much greater. This I think is due to two principal causes: the rulings of courts on the law of negligence, and the fact that corporations have too frequently fought cases in which both law and facts were against them, relying largely upon brilliant and well-paid counsel to tire litigants and defeat a meritorious claim. This condition of affairs has produced lawyers who practice this branch of the law almost exclusively, and it is now possible for litigants to secure the best of legal and medical talent by assigning a certain portion of the prospective judgment. It has been my experience that these cases are usually much better prepared, so far as the medical questions are concerned, for the prosecution than for the defense. Part of this preparation consists in posting the counsel on the direct points at issue and thoroughly indoctrinating him with the theory of the case adopted by the medical witnesses.

Cases are frequently injured—and this occurs about as often for the plaintiff as for the defendant—by calling a witness who writes M. D. after his name and whose opinion is adverse to the other side, while in fact he cannot sustain the opinion or himself on cross-examination. A recent case occurring in the city of Chicago in which a verdict of \$30,000 was returned against a railway company well illustrates this point and shows the injury that may be done to a case by a poor expert witness. The plaintiffs put three physicians on the stand and the defendant company five. One of the latter, after airing his erudition on the joints, ligaments and muscles of the spine (the injury was to the spine), failed to remember what muscles were attached to the styloid process of the temporal bone. Another said that the spinal cord terminated opposite the last dorsal vertebra in the "caudal appendix." A third, when asked to give the normal order of the polar muscle reactions, said that he had never heard of such

a thing and that the question was absurd and unanswerable. It must be apparent that such witnesses materially lessened the effect of the two remaining good witnesses and far outweighed the mere *ex cathedra* opinion of a larger number. Such witnesses are only an embarrassment and not a help.

Proficiency in clinical and operative surgery will for obvious reasons furnish the chief recommendation of the railway surgeon of the future, yet in my judgment they do not furnish the best training for the medical jurist. That is almost a separate branch of study, and requires a thorough knowledge of physical diagnosis, not only surgical but medical and also pathology. The medical jurist should perfect himself in all the most improved methods of diagnosis, in all branches of medicine, more especially those methods which furnish us with the objective signs of disease, for after all it is the objective signs that determine the status of a case in court. To these should be added a careful study of the art of medical jurisprudence—that is, the orderly presentation of facts and theories, so as to lead up to a logical conclusion and all that in plain, non-technical language and in such fashion as to convince the average juryman that his position and judgment are unassailable.

TRAUMATIC NEUROSIS.—TEMPORARY INSANITY FOLLOWING OPERATION FOR ABSCESS.

BY WILLIAM H. SHIPPS, M. D.,
BORDENTOWN, N. J.

On April 2, 1890, I was requested by a fellow-practitioner, to operate upon a patient suffering with a large abscess, situated in the upper portion of the right breast and extending to the axilla of the same side. The patient, a man 40 years of age, stated that the abscess was the result of an injury sustained a month before, and had been gradually developing ever since, causing him intense suffering. He had been under the care of two physicians, who had used both local and internal treatment with the hope of aborting the abscess. There was nothing about the general appearance of the man to attract notice, except, perhaps, a certain dulness of expression, and a quick, nervous manner of speech, which at the time I attributed to individual peculiarity. He

gave me a brief account of the injury and the treatment employed, and denied ever having been the subject of specific disease. Without further ceremony I freely opened the swelling, evacuating about eight ounces of pus and blood, after which an antiseptic dressing was applied. Immediately the patient expressed himself as much relieved, and stated his intention of at once returning home by rail, a distance of ten miles. From this, however, he was dissuaded, and urged to pass the night at a friend's house in this city, in order that opportunity might be given me to re-dress the parts in the morning.

The morning following, I called upon the patient, and was surprised to learn that, shortly after entering his friend's house, he had begun to talk and act strangely, altogether unlike anything which had been known of him before. During the night he became at times unmanageable, refusing to go to bed or take either medicine or nourishment. On entering his room I found him before the mirror, gazing vacantly at his image in the glass. He was almost naked, and had torn every vestige of the dressing from his body. He seemed entirely indifferent to the presence of others about him, save that our entrance caused him more or less uneasiness, which was evidenced by his continually pacing the room and peering out of door and window, as if in search of some avenue of escape. On motioning him to a chair, he would insist upon getting on it with his feet, repeating the operation as often as I attempted to make him occupy it in the natural position. At times he would insist upon getting out of the windows, and was only prevented from so doing by the determined resistance of his attendants. For two days he absolutely refused all food, and during that period had not slept an hour. His pulse and temperature being normal throughout, and careful inquiry of friends and relatives as to his family history throwing no light upon his present condition, I felt no hesitancy in pronouncing the case one of temporary insanity. I therefore advised that he be removed as speedily as possible to the State asylum for the insane. In this I was seconded by Dr. I. D. Young, of Bordentown, who very kindly saw the patient with me. Accordingly arrangements were made for the patient's removal the day following, or the third day after the case came under my observation. Early in the morning of the day

fixed for his departure, I called at the house for the purpose of facilitating his removal. On entering the dwelling, I was met at the door by his host, who with smiling countenance informed me that "John was all right now." On inquiry I ascertained that shortly after midnight he had fallen asleep for the first time in three days, sleeping soundly until daybreak, when he awoke perfectly calm and rational. On meeting the patient I was happy in being able to confirm all that had been told me, and found him sitting up apparently clothed in his right mind, sensible that something was amiss, but totally ignorant of the nature of his attack. In a day or two he returned home, unaccompanied, and since then has been in the enjoyment of good health.

The case was doubly interesting to me, because of the unexpected sequela of the operation, and secondly because his friends attributed his insanity solely to the operation, arguing that as the man was sane prior to the use of the knife, and insane almost immediately afterwards, but one conclusion could be drawn. The satisfactory termination of the case, however, quickly put to flight all such nonsensical reasoning as this.¹

FOREIGN CORRESPONDENCE.

BERLIN LETTER.

The Latest Developments in the Tuberculin Question—Koch Worried and Intimidated.—The Position of the Government in the Case.—Voices from Hospitals.—Vox Populi.—Professional Feeling in the matter.

BERLIN, February 17, 1891.

The storm of enthusiasm has passed and the low tide of cold inspection and calculation has set in. The miracle is—not what little there is left of the glowing anticipations of the Koch Chauvinists, but that there is anything left at all. It required the stern and pitiless voice of Virchow to restore to the profession the common sense which apparently had been completely lost. It required, moreover, unwarrantable sacrifices of human lives to convince the profession that the millennium of medicine has not yet

¹ [Neuroses following surgical injuries and operations have of late attracted considerable attention, and this report by Dr. Shipp is an interesting contribution to the subject.—ED. REPORTER.]

arrived. Virchow, as I have learnt from a good source, will continue his warfare against the "lymph" without zeal or malice, but with a persistence which will ultimately prove fatal to the young remedy. As to the deaths caused by tuberculine, I regret to state that their number is not a small one. Sudden failure of vital energy caused by the artificial fever, hemoptysis, and miliary tuberculosis are the chief sources of danger from the exhibition of the remedy. Quite recently a young medical man who had contracted a catarrh of the apex was hurried to death by a rapidly developing miliary tuberculosis under the influence of tuberculine.

Koch's path during the last two months was not a rosy one. His private residence in the Thiergarten, formerly an ideal of seclusion and privacy, soon became the centre of attraction. In spite of all possible signs and inscriptions, such as "moved out of town," postmen and telegraph messengers vied with patients and doctors in besieging the house. He actually did move temporarily to a friend's house, but was hunted and found out by two Western practitioners. There was nothing left for Koch but to flee. Those anxious to see him can do so at Luxor or Ghizeh, near the pyramids which are fortunately unable to interview the German doctor. Koch's flight had, besides, another reason, viz., the gradual falling off of his admirers and the steady increase of his opposers. It is rumored that he left worried and full of anxiety.

In a still worse fix, however, than Koch, is the German Government, and especially von Gossler, the Cultus Minister. It is undeniable that von Gossler alone has brought about the present unpleasant state of affairs in the matter. Koch yielded unwillingly to that official's incessant demands to publish a matter as yet unfinished. Von Gossler evidently was led by political and national impulses. The question of emoluments for the Koch cause has of late changed its aspects. It is likely that no financial aid will be extended to Koch personally. As the matter stands at present, it is more than doubtful whether the Reichstag would vote a large money-grant for the purpose. Meanwhile authoritative voices of clinicians continue to take stand against tuberculine. The Berliner Jüdische Krankenhaus has had a sad experience with the new remedy, and Prof. James Israel, its famous Chief, has banished it completely from the wards. I listened last night to what Sanitätsrath Dr.

Thorner had to say about tuberculine before the Verein für Innere Medizin. He had used the remedy since November 20, last year. Thorner censured severely the present arrangement in the distribution of the remedy, which secured for some hospitals and a few clinicians an actual monopoly of the remedy. The ordinary practitioner, he said, ought by all means to be able to obtain the remedy, for he can detect the signs of initial consumption before even the patient himself is aware of the affection. Thorner has had quite satisfactory results with tuberculine, though in one instance the remedy killed a patient. In the majority of cases a considerable improvement took place, as evidenced by a decrease of subjective difficulties and increase of bodily weight. In one patient suffering from apical catarrh, the bacilli had left the sputa under the influence of tuberculine. Thorner then communicated some interesting observations he had made in experimenting with the remedy upon animals. Any animal, he said, suffering from miliary tuberculosis can be cured with tuberculine. This statement—being absolutely new—created considerable astonishment. Likewise interesting was Thorner's statement that, as long as an animal was subjected to tuberculine injections it was immune against infection of tubercle bacilli, and that this state of immunity ceased as soon as the tuberculine was withdrawn. Hence it is clear that Koch's remedy can never be utilized as an immunization lymph against tuberculosis.

There are authorities like Prof Schroetter of Vienna—one of the consulting physicians of the late Emperor Frederick, at San Remo—who deny not only the therapeutic but also the diagnostic value of tuberculine. Bardeleben and Bergmann have lowered their enthusiasm to a minimum, while Leyden and Gerhardt still believe in its future. Henoch, the Nestor of pediatrics, has in plain words designated the remedy as useless and dangerous for children.

Possibly it will interest you also to learn what the Berlin populace think at present of the remedy. The common feeling is very much opposed to the Koch cure, and it is not too much to say that today no intelligent Berliner would submit to its exhibition on his own person.

The profession too, on the whole, is antagonistic to the Koch cure. The Berlin Medical Union at Friedrichstadt, has just formulated its disapproval of tuberculine and

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is determined to take a firm stand against the remedy and especially against the present mode of its distribution.

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Tachycardia Cured with Electricity and Belladonna.

Dr. Thomas Oliver, Physician to the Royal Infirmary, Newcastle-upon-Tyne, says in the *British Medical Journal*, January 31, 1891:

In July, 1890, I was asked by Dr. Farquharson, of Newcastle, to see with him in consultation a young man, aged 28—a nervous, anxious-looking and emaciated man, who was slightly cyanosed. There was no history of rheumatism. Five or six years ago he met with an accident, and again, two years ago, when he fell over a "tipping" with his horse and cart. Though not materially injured at the time, he felt as if he had had a shock. From this date he became extremely nervous, and began to lose all his energy and pluck; he became afraid even of his own horse. He now began to suffer from attacks of violent palpitation, which would last for several days, and within the last three months he has been seldom free from these attacks of palpitation and a sense of cardiac distress for more than a week at a time.

When seen first by Dr. Farquharson in these attacks, the pulse-rate was generally from 190 to 230 in the minute. In his quiet state the pulse seldom exceeded 90, and when this was the case there could be heard a well-marked mitral systolic murmur. There was no albuminuria, no distended jugular veins, and no oedema of feet, but the left pupil was noticed to be smaller than the right—a condition of things which became more pronounced, Dr. Farquharson stated, if the stomach were distended with flatus. He had lately been the subject of dyspepsia and constipation and when these were present his cardiac distress was increased. Beyond a sense of discomfort, of praecordial pain and uneasiness which the excited action of the heart caused, there was no marked dyspnoea. His sleep was broken and fitful. By his illness he had been rendered quite unfit for work.

The slight cyanosis alluded to was noticed in the lips, on the face and in the finger ends. The pulse was small and extremely

rapid. I counted up to 240 beats in the minute and then lost it. It was upwards of 250 on Dr. Farquharson's reckoning, but on this point we speak guardedly. Knee-jerks were slightly exaggerated. The lungs were perfectly healthy. Heart: the apex beat, which was very diffused, was felt two inches external to the nipple; there was also marked epigastric pulsation; pulsation, too, was seen and felt to the right of the sternum at the level of the right ventricle. The area of cardiac dulness was increased transversely. The tap of the heart could be seen and heard quite distinctly several inches from the chest—I thought about two feet. Over the aortic area—extending up to the episternal notch and down the sternum to the xiphoid cartilage—was heard a rough grating systolic murmur, followed by a well-marked second sound. It was only by counting the loud second sound of the heart that we were able to estimate the rate of cardiac pulsation. In addition to the grating systolic murmur mentioned above, a soft mitral systolic could be heard, which was carried towards the left axilla, and particularly towards the back at the level of the fifth dorsal spine. Pressure upon the pneumogastric nerve in the neck slowed the action of the heart. The urine was normal; the internal organs of the abdomen appeared to be healthy.

We arranged that he should have 30-minim doses of tinct. belladonnae, with small doses of Fowler's solution; that for a few days the ether spray should be applied to the back of the neck, and afterwards the interrupted current to the pneumogastric, one pole behind the neck high up, and the other along the course of the nerve in the neck. Within a fortnight he was very much better. His pulse was never higher than 120 a minute, and that only during excitement. A sphygmographic tracing taken at this time showed low arterial tension and well-marked dicrotism. There was still the well-marked pericardial grating and mitral systolic murmur. The area of cardiac dulness remained as before; in its lateral diameter it measured 6½ inches.

It is now seven months since I saw him, and Dr. Farquharson tells me that the patient has made an excellent recovery. Only once since the beginning of July has there been a return of the very rapid action of the heart, and on that occasion it only lasted two or three hours instead of the three or four days as previously. His pulse

at present is never higher than 80 in the minute. For the last few weeks he has been taking arsenic and digitalis.

From being an anxious-looking, irritable and nervous man, unable to follow his employment, he has become calm and more self-possessed, and is now able to carry on his employment, not so much in the out-door department as in looking after the financial concerns of the business. The only unpleasant symptom which has been left is something akin to agoraphobia. In coming into Newcastle by road or rail he has to cross the High Level Bridge which spans the river Tyne, and whether he is in the train or on the roadway he always experiences, when on this bridge, unpleasant sensations originating at "the pit of the stomach as if a void had been suddenly created." This is so apt to be followed by increased rapidity of the heart that knowledge of this fact prevents him from making the journey into Newcastle as frequently as he would.

The subject of tachycardia has attracted considerable attention since Dr. Samuel West and Dr. Sansom have written upon it, and latterly our interest in it has been revived by the remarks made by Sir Dyce Duckworth in the discussion which he opened at the Birmingham meeting of the British Medical Association on Functional Disorders of the Heart. In the absence of a rheumatic history, the origin of the disorder in our patient must be sought for in some condition of the central nervous system induced by the fright and shock, although the pericardial grating, the mitral systolic murmur and enlargement of the heart—in the absence of any pronounced vascular lesion, such as aneurism—must not be lost sight of. The immediate effect noticed when gentle pressure was applied to the pneumogastric nerves in the neck, and the good result which followed electrical stimulation, point in the main to a central cause suspending the inhibitory action of these nerves upon the heart, or to increased activity of the accelerating branches of the sympathetic.

Suppuration of the Antrum of Highmore.

In the *Indiana Medical Journal*, February, 1891, Dr. L. C. Cline, of Indianapolis, has an interesting paper on suppurative disease of the antrum of Highmore, in which he says: The antrum, owing to its size, situa-

tion and its relation to the nasal cavities and the teeth, is more frequently involved in the suppurating process than any other of the cavities of the bones of the face and skull which communicate with the nasal passages.

This cavity becomes involved principally from two sources, namely, dental complications and hypertrophic rhinitis. The inflammation does not extend into the antrum by continuity, but probably by the hypertrophy and turgescence of the nasal membrane producing stenosis or complete occlusion of the opening, thus causing hyperemia of the mucous membrane of the antrum, resulting necessarily in an increase of secretion, which accumulates and eventually degenerates and causes a purulent discharge; for it is generally conceded that a catarrhal secretion in a closed cavity will, sooner or later, give rise to a discharge of pus. The symptoms of an acute or recent case are pain and tenderness, with a sense of weight and fulness over the antrum and a pressure up against the eye, with slight hyperemia of the ocular conjunctiva. If due to dental origin, there will be slight pain on pressure of the corresponding teeth. When due to occlusion of the orifice from swelling of the turbinates, there is nearly always severe neuralgic pains, accompanied by more or less swelling and tenderness of the face in the region of the antrum. The pain is usually worse in the morning, and will be increased by stooping or lowering the head. The formation of pus is announced with a chill followed with fever, and if the closing of the opening of the antrum be due to turgescence or swelling of the turbinate bodies from cold, the symptoms may all subside in a few days, and the inflamed membrane will return to its normal condition, or the purulent discharge may continue in a less quantity indefinitely and all the acute and painful symptoms subside.

If the opening of the antrum with the nasal cavity remain free, as in the case of dental origin, the pus finds its way through the opening, and may produce by its constant irritation an obstinate turgescence of the turbinate bodies and occlusion of the nasal passages. The pus is usually discharged at intervals during the day, viz., on rising in the morning and in the afternoon, and when stooping. It is thought by some that when the pus has a dental origin, it is more offensive than when it is due to colds.

The diagnosis is not difficult, as a rule, in the recent or acute cases. The history,

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coupled with pain referable to the antrum and side of the face, together with the discharge from one side, will determine the diagnosis. If the case is chronic, a careful inspection of the nose will result in finding pus on the anterior and inferior part of the middle turbinated body; or a drop may be seen protruding between the middle and inferior turbinate bodies posteriorly, which when wiped away, in either position, can be made to reappear by changing the position of the head or pressing on the walls of the antrum. The discharge of a straw-colored pus from one side of the nose is always strong evidence of a diseased antrum.

Dr. Cline says (but we believe it is not so certain) that Voltolin's method, as improved by Heryng, is of great value in these cases. It consists of an incandescent lamp placed in the mouth, over which the lips are closed. The patient being placed in a dark room, the bones of the face become beautifully illuminated. A dark shade will outline the situation of the antrum. If the antrum contains pus it will be outlined by a dark spot and a total absence of any illumination—a marked contrast to the opposite or healthy side.

A very simple and efficient method of diagnosis is to inject a few drops of peroxide of hydrogen with a small syringe, armed with a canula, one-eighth of an inch of the distal end being bent at right angles, so as to enter the opening of the antrum. The nose should be well cocaineized to avoid pain. If pus be present, it will boil up and fill the nose with a white foam. By using this method, an exploratory puncture will be unnecessary in the majority of cases.

After we have determined that the antrum contains pus, how shall we get rid of it and cure our patient? There are several methods of treatment, but I will only give what I believe to be the best. In recent cases there may be an effort made to restore the antrum by first relieving the swollen and turgescent condition of the turbinates; then follow with injections of peroxide of hydrogen, as before stated, passing the point of the syringe back about half way between the middle and inferior turbinated bodies. This may be followed by light astringents such as—zinc sulphate, 3 to 5 grains to the ounce; silver nitrate, 3 to 10 grains to the ounce; saturated solution of boric acid, or borax; listerine; or a weak solution of the tincture of iodine.

When the case is chronic, there should

be an opening made at the most dependent portion of the sinus. Dr. Cline's practice has been to drill up through the alveolus with a drill run by an electro-motor, and then to insert a silver tube, made from coiled wire. Some prefer entering the antrum in the same way, just below the gingivo-labial fold, between the upper portion of the roots of the second bicuspid and first molar tooth, directing the drill upward and backward at an angle of forty-five degrees. In either case the opening should be of sufficient size to admit of free cleansing and washing out of the antrum. A tube of sufficient length to enter the antrum should be neatly fitted, and guarded from entering the antrum by a shield of rubber or wired to the adjoining tooth.

The after-treatment consists of daily or twice daily, washing out the cavity, first with peroxide of hydrogen (commercial strength), followed with a slightly alkaline or carbolic water in quantity sufficient to thoroughly cleanse the cavity. Then, every second or third day, inject a sufficient amount to thoroughly cover the surface, of one of following solutions, as the case may seem to indicate: saturated solution boric acid, 5 to 20 drops of tincture of iodine to 2 drachms distilled water; sulphite of zinc, 3 to 10 grains to the ounce; nitrate of silver, 10 to 20 grains to the ounce; iodoform, 20 grains to an ounce of the oil of sweet almond.

Of these Dr. Cline likes boric acid the best.

Names of Diseases.

There has, in the course of time, crept into medical nomenclature a number of proper names which have been used in connection with certain morbid conditions. The list has grown so long that a reproduction from *Journal de Médecine*, January 11, 1891, of the most common, with their symptoms, may prove interesting and not without utility.

Addison's disease—maladie bronzée—disease of the supra-renal capsules.

Albert's disease—fungoid mycosis.

Aran-Duchenne's disease—progressive muscular atrophy.

Argyll-Robertson pupil—one which changes in accommodation, but does not respond to light.

Astley Cooper's hernia—femoral hernia with a multilocular sac.

Barton's fracture—one of the lower end of the radius involving the joint.

Basedow's disease—exophthalmic goitre.
 Baudin's law—antagonism of tuberculous and malaria.
 Bazin's disease—buccal psoriasis.
 Beclard's disease—hernia through the saphenous opening.
 Bell's palsy—paralysis of the seventh nerve.
 Boyer's cyst—sub-hyoid cyst.
 Bright's disease—albuminuric nephritis.
 Brown-Séquard's combination of symptoms—hemiparaplegia with hemianesthesia of the opposite side.
 Cazenave's lupus—lupus erythematoses.
 Charcot's disease—amyotrophic lateral sclerosis.
 Charcot's joint—the enlarged joint of locomotor ataxia.
 Cheyne-Stokes breathing—ascending and descending frequency of respiration.
 Cloquet's hernia—perineal hernia.
 Colles's fracture—one of the lower third of the radius.
 Colles's law—that of non-infection of the mother by her syphilitic infant at the breast.
 Corrigan's disease—aortic insufficiency.
 Corrigan pulse—water-hammer pulse—the pulse of aortic regurgitation.
 Corvisart's facies—asytolic facies.
 Cruveilhier's disease—simple ulcer of the stomach.
 Cruveilhier's paralysis—progressive muscular atrophy.
 Donders's glaucoma—simple atrophic glaucoma.
 Dressler's disease—paroxysmal hemoglobinuria.
 Dubini's disease—electrical chorea.
 Duchenne's disease—locomotor ataxia.
 Duchenne's paralysis—pseudo-hypertrophic paralysis.
 Duhring's disease—dermatitis herpetiformis.
 Dupuytren's disease—retraction of the palmar aponeurosis.
 Dupuytren's hydrocele—bi-locular (*en bissac*) hydrocele.
 E. Wilson's disease—universal exfoliative dermatitis.
 Eichstedt's disease— pityriasis versicolor.
 Erb's palsy—paralysis of the brachial plexus.
 Erb-Charcot's disease—spasmodic tabes dorsalis.
 Fouchard's disease—alveolo-dental periostitis.
 Friedreich's disease—hereditary ataxia.
 Gerier's disease—paralytic vertigo.
 Gibbon's hydrocele—that coincident with hernia.
 Gilbert's pityriasis—pityriasis rosea.
 G. de la Tourette's disease—motor incoordination.
 Goyrand's hernia—inguino-interstitial hernia.
 Graefe's sign—failure of the upper lids to follow the eyes in descent.
 Graves's disease—exophthalmic goitre.
 Guyon's sign—renal ballottement.
 Harley's disease—paroxysmal hemoglobinuria.
 Heberden's rheumatism—that of small articulations with nodosities.
 Hebra's disease—polymorphous erythema.
 Hebra's pityriasis—pityriasis rubra chronicata.
 Hebra's prurigo—idiopathic prurigo.
 Henoch's purpura—purpura with abdominal symptoms.
 Hesselbach's hernia—femoral hernia with a multilocular sac.
 Hippocrates's facies—that of agony.
 Hodgkin's disease—adenitis; pseudo-leucocytopenia.
 Hodgson's disease—atheroma of the aorta.
 Huguier's disease—fibromyomata of the uterus.
 Hutchinson's teeth—notched teeth of hereditary syphilis.
 Hutchinson's trio of symptoms—notched teeth, interstitial keratitis and otitis of hereditary syphilis.
 Jacksonian epilepsy—focal epilepsy.
 Jacob's ulcer—cancroid ulcer.
 Kaposi's disease—xeroderma pigmentosa.
 Kopp's asthma—thymic asthma—spasm of the glottis.
 Krönlein's hernia—inguino-properitoneal hernia.
 Laennec's cirrhosis—atrophic cirrhosis.
 Landry's disease—acute ascending paralysis.
 Laugier's hernia—that across Gimbernat's ligament.
 Leber's disease—hereditary optic atrophy.
 Levert's law—marginal insertion of the umbilical cord with a small placenta.
 Littré's hernia—diverticular hernia.
 Ludwig's angina—infectious phlegmon of the subhyoid region.
 Malassez's disease—cyst of the testicle.
 Ménière's disease—labyrinthine vertigo.

Millar's asthma—laryngismus stridulus—spasm of the glottis.

Morrand's foot—one with eight toes.

Morvan's disease—analgesic paralysis of the extremities.

Paget's disease—pre-cancerous eczema of the breast.

Paget's disease—hypertrophied deforming osteitis.

Parkinson's disease—paralysis agitans.

Parrot's disease—syphilitic pseudo-paralysis.

Parry's disease—exophthalmic goitre.

Pavy's disease—intermittent albuminuria.

Petit's hernia—lumbar hernia.

Pott's aneurism—aneurism by anastomosis.

Pott's disease—ostitis of the vertebra.

Pott's fracture—fracture of the tibia.

Raynaud's disease—symmetrical gangrene of the extremities.

Réclus's disease—cystic disease of the breast.

Richter's hernia—parietal enterocoele.

Rivolta's disease—actinomycosis.

Romberg's sign—ataxic swaying in the dark or with closed eyes.

Rosenbach's sign—abolition of the abdominal reflex.

Soesnich's ulcer—infectious ulcer of the cornea.

Stellwag's symptom—retraction of the upper eyelid.

Stokes's law—paralysis of muscles subjacent to inflamed serous and mucous membranes.

Storck's blenorhoea—that of the respiratory passages.

Sydenham's chorea—chorea minor—common chorea.

Thomsen's disease—muscular spasm on voluntary movement.

Tornwald's disease—inflammation of the pharyngeal tonsil.

Velpeau's hernia—femoral hernia in front of the vessels.

Volkmann's deformity—congenital tibio-tarsal luxation.

Wardrop's disease—malignant onychia.

Weil's disease—abortive typhoid fever with jaundice.

Werlhoff's disease—purpura hemorrhagia.

Westphal's sign—abolition of the knee jerk.

Willard's lupus—tuberculous lupus.

Winckel's disease—cyanosis of the newborn.

New Operation for Spasmodic Wry Neck.

Dr. W. W. Keen read a paper on this subject before the Philadelphia Neurological Society, Oct. 27, 1890; it is published in the *Annals of Surgery*, Jan., 1891. The steps of the operation are as follows:

1. The field of operation having been shaved and disinfected, make a transverse incision about half an inch below the level of the lobule of the ear, from the middle line of the neck posteriorly, or even slightly overlapping the middle. This incision should be two and one-half to three inches long.

2. Divide the trapezius transversely.

3. Dissect up to the trapezius and find the occipitalis major nerve as it emerges from the complexus and enters the trapezius. In the complexus is an intra-muscular aponeurosis. The nerve emerges from the complexus at a point between this aponeurosis and the middle line, usually about a half inch below the incision, but sometimes higher up, and then enters the trapezius. It is always a large nerve of the size of a stout piece of catgut, and it is easily found if sought for at the right place.

4. Divide the complexus transversely at the level of the nerve. This division should be made by repeated small cuts, so as not to cut the nerve which is our guide, after which dissect the nerve still further down from the anterior surface of the complexus, where it arises from the posterior division of the second cervical. Cut, or better, excise a portion of the posterior division before the occipitalis major arises from it, so as to catch the filament to the inferior oblique muscle. This divides the *second cervical*.

5. Recognize the inferior oblique muscle by following the sub-occipital nerve towards the spine. The nerve passes immediately below the border of the muscle.

6. Recognize the sub-occipital triangle formed by the two oblique muscles and the rectus capitis posticus major. In this triangle lies the sub-occipital close to the occiput. It should be traced down to the spine itself, and be divided, or, better, excised. This divides the *first cervical*.

7. An inch lower down than the occipitalis major, and under the complexus, is the external branch of the posterior division of the third cervical to the splenius. When found, it is to be divided or excised close to the bifurcation of the main trunk. This divides the *third cervical*.

A drainage-tube and horse hairs are to be inserted, and as the patient lies on the back, although the wound is very deep, the condition is most favorable for good drainage. If desired, the posterior muscles can be united by buried sutures, independently of those in the skin. The after-treatment is the same as for ordinary operations.

Terpene Iodide in Diseases of the Lungs.

In the *New York Medical Journal*, February 14, Dr. William H. Gregg says: For the past two or three years I have carried on a series of therapeutical investigations in search of some antiseptic agent that would act as a specific against the development of acute diseases of the lungs, more particularly acute congestion, pneumonia and those catarrhal and throat affections which are so often the premonitory symptoms of more serious mischief. While I have demonstrated to my own satisfaction that these diseases may be cut short, I am not so sanguine that the remedy will prove curative in all cases where a disease is once fully developed, yet further investigation may prove that it possesses specific properties even in these cases.

It has been my desire only to suggest some drug or combination of drugs which will prevent the ravages of the various cocci that are carried into the lungs through the agency of those septic storms which are so frequent in this climate, before an actual disease of the lungs has been established.

The great disadvantage the physician has to contend against in the administration of medicines is the changes they are liable to undergo when taken into the stomach before they finally enter the circulation. It would therefore appear that we ought to administer all of our remedies hypodermically, and perhaps this is the more rational way of obtaining their full benefit. But this mode has its objections. In the first place, it requires more or less skill; besides, it is painful and at times is followed by unpleasant effects.

I believe that terpene iodide enters into the circulation unchanged, from the fact that it acts as quickly as if it were administered hypodermically. It is my judgment that the remedy offers greater success and produces happier results than any other of this class of remedies. While it is a powerful antiseptic, it is comparatively harmless,

for, after prescribing it for several years, I have yet to meet with any unpleasant effect. In acute affections of the throat it may be used in spray; while in other cases it may be given to adults in ten-drop doses, on a teaspoonful of sugar, once or twice a day—in the morning and at bedtime. The morning dose should be followed by a glass of milk or bouillon. Larger or more frequent doses are apt to excite too great a discharge of urine.

I have no doubt that terpene iodide will, should it come into general practice, find a wider range of usefulness than that above indicated. As to its value in phthisis pulmonalis, diphtheria and other zymotic diseases, I am at present unable to speak.

Local Treatment of Tuberculosis of the Larynx.

The *Journal de Médecine de Paris*, January 25, 1891, says that Goris uses various astringent powders for insufflation in the treatment of laryngeal tuberculosis, with the object of coagulating the albumin and forming a more or less protective coating, of keeping aseptic the interior of the larynx, and of relieving pain. He uses the following formula of Schnitzler:

R	Morphinae acetatis	gr. iij
	Plumbi acetatis	3 ss
	Sacchari lactis	3 v

M. Ft. pulvis.

In addition he prescribes:

R	Iodoformi (vel iodol)	gr. xv
	Sacchari lactis	3 ijjss

M. Ft. pulvis.

or

R	Iodoformi (vel iodol)	gr. xv
	Cocaine hydrochloratis	gr. viij
	Sacchari lactis	3 ijjss

M. Ft. pulvis.

or

R	Acidi tannici	gr. vijss
	Sacchari lactis	3 ijjss

M. Ft. pulvis.

At the same time, he directs inhalations of the vapor of a three per cent. solution of sodium benzoate, adding at each inhalation a half teaspoonful of the following:

R	Tincturæ eucalypti	f 3 v
	Balsami Peruviani	3 j

M.

If the laryngeal secretion is excessive, a drachm of terpinol may be added to the preceding.

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Never roll a manuscript! Try to get an envelope or wrapper which will fit it.

When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.

The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

KOCH'S FLUID IN NON-TUBERCULOUS PERSONS.

To determine if injections of the Koch fluid, within the limits prescribed by Koch, produce reaction in healthy individuals, Dr. Erich Peiper (*Allgemeine Medicinische Central Zeitung*, January 31, 1891) injected at the clinic of Mosler, at Greifswald, twenty-two persons in whom evidences of pulmonary tuberculosis were absent. This number included one healthy medical student, one case each, of cystitis that had been relieved, of arthritis, of rheumatic pains at the shoulder, of gastritis already relieved, of sciatica, of gonorrhœa relieved, of a convalescent from typhoid fever, of eczema of the face, of tabes dorsalis, of chlorosis and trigeminal neuralgia, of carcinoma of the stomach, six cases of diffuse bronchitis, one of fetid bronchitis, two of gonorrhœa and one of cystitis. In every instance the fluid

was fresh or but a few days old, and was diluted with a five per cent. solution of carbolic acid. The usual precautions were taken. In no case did any complication occur at the site of injection. More than one centigram was only exceptionally used. Four patients failed to react, or showed but slight reaction. Four others had temperatures of 100.7° and a degree of malaise. The remaining fourteen displayed quite decided reactions. Of nineteen who received two milligrams each, four presented a general reaction, with temperatures of from 102° to 104°. Of twenty-one who received five milligrams each, eight displayed evidences of reaction, with temperatures of from 100.5° to 104°. Of sixteen who received one centigram each, twelve reacted, four with temperatures of 100.4°, eight with temperatures of from 101° to 104.5°. The reaction was usually ushered in from six to ten hours by shivering or a chill. The maximum was soon reached and the temperature slowly fell. On the day following, the temperature, in some cases, was unusually low. In one case, after an injection of one centigram, the fever lasted for two and a half days. The accompanying symptoms were pains in the extremities, headache, flushing, sweating, dyspnoea, irritable cough, increased expectoration and pains in the side of the chest, not so decided, however, as in the reaction of tuberculous patients. Cough was absent in several cases of bronchitis. In two cases, the spleen was enlarged. There was increased frequency of pulse and respiration in proportion to the elevation of temperature. In three cases, in which pus was present, reaction followed upon small doses. A patient with cystitis, in whom there was no reason to believe that tuberculosis existed, reacted promptly to each of ten injections, decided improvement in the local disease taking place.

It is to be regretted that a number of perfectly healthy persons could not be secured for making the investigations. It also remains, of course, an open question

if patients who react to the injections may not have in some part of the body a latent tuberculosis—although to assume this is a pure hypothesis.

It must not be forgotten that the Koch fluid is a potent agent—for good or ill—in the administration of which the greatest discretion should be observed. Extravagant claims should not be made for it, nor should it be condemned merely because injudiciously used. Our own opinion is that it is of no real value as a therapeutic agent, although—as we stated in our first comment on it—we would be glad, for the sake of humanity, if the judgment should prove to be erroneous. It is a curious fact that in the only case, so far as we know, which has been claimed as a "cure" in Philadelphia, the patient died in the Philadelphia Hospital on March 6, a hurried *post-mortem* examination being made by the attending surgeon without securing the presence of the Pathologist of the Hospital.

TREATMENT OF ANEMIA.

It should always be borne in mind that anemia is a symptom. When the removal of the condition which gives rise to it is possible, this should be the first step in the treatment, and it alone may suffice to dissipate the anemia. Sometimes, however, the causative factor eludes detection, or it may be that the disease to which the anemia is due is beyond the reach of treatment. Under these circumstances, the anemia, as such, must be directly attacked. The *Deutsche Medicinische Wochenschrift*, January 29, 1891, contains a brief paper by Dr. Laache, presented to the Section on Internal Medicine, at the Tenth International Medical Congress at Berlin, in which are laid down the lines of treatment of the various forms of anemia.

If worms are present in the intestinal canal, if hemorrhage or other wasting discharge exists, if digestion is impaired, these conditions should receive appropriate atten-

tion. For the simple anemias and for chlorosis, in which there is deficiency both of red corpuscles and of hemoglobin, iron is the best remedy. A favorite form in which to administer iron is as Blaud's pill, containing equal parts of dried sulphate of iron and carbonate of potassium. For cases to which this is not suitable, or in which it is not well borne, the lactate or the carbonate of iron, or a solution of the albuminate, may be prescribed, or a soluble salt may be injected subcutaneously. A most important point in the administration of iron is that it must be continued persistently, for long periods, it being remembered that the number of corpuscles is restored to the normal long before the proportion of hemoglobin. Next in importance to iron is arsenic, which has a special application in the treatment of pernicious anemia, in which there is a diminution in the number of red cells and in the total amount of hemoglobin, although the individual red corpuscle contains a relative excess of hemoglobin. To arsenic is also ascribed the property of diminishing the number of white corpuscles, which ought to make it a valuable remedy in the treatment of leukemia.

Of other remedies recommended for the treatment of anemia, many are of doubtful value, while, of a few, some good may be expected in individual instances. Among the latter may be included: transfusion of blood or solutions of common salt, subcutaneous injection of blood, and inhalations of oxygen. Of all the means proposed, the most astounding, perhaps, is blood letting, which, in a few reported cases, is said to have given satisfactory results.

The general management in a case of anemia is not to be neglected. Light and pure air should be provided for. Passive or gentle active exercise in the open air, avoiding fatigue, is to be commended in most cases of ordinary anemia. In pernicious anemia, however, rest in the recumbent posture should be insisted upon; while in intense anemia following hemorrhage,

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and in chlorosis, such rest—at least for a time—acts beneficially. In cases in which heat production has not sunk too low, judicious treatment with cold water has a tonic effect. Sea-bathing must be undertaken with extreme caution, and the dietary should not be arranged with a view to the production of fat, but should consist largely of meat, so as to supply the material from which blood corpuscles can be made.

With these general suggestions, it would not be hard for any medical man to arrange a plan of treatment suited to almost any case of anemia, remembering always that the end to be accomplished is to lay up for the patient a stock of vigorous blood which shall support and not drain the tissues through which it circulates.

TREATMENT OF ASTHMA IN CHILDREN.

Dr. Blache, in the *Bulletin Medical*, January 14, 1891, points out the indications in the treatment of asthma occurring in children. At the onset of the attack, inhalations of the smoke from burning leaves of belladonna, hyoscyamus or stramonium, from nitre paper, inhalations of oxygen or of iodide of ethyl, should be tried. These failing, a hypodermic of a little morphine will at once relieve the dyspnoea. Morphine, however, must be used with great circumspection in children. Belladonna, on the other hand, is well borne, and its use may be continued for a long time. A sixth of a grain of the powder or a sixth of a grain of the extract may be given daily. The tincture of lobelia is well borne in large doses. Beginning with twenty drops, the dose may be gradually increased to three drachms in twenty-four hours. Good results have been obtained with the tincture of grindelia robusta, which has also been said to be a specific in whooping-cough. From fifteen to twenty drops may be given at a dose. Inhalations of the vapor of pyridin, as recommended by Sée, mitigate the severity of the paroxysm.

In the curative treatment, the iodides, and especially the iodide of potassium, hold the first place. Their efficacy depends upon an influence upon the brain and medulla, regulating nervous discharges. If the iodides are not well borne or if symptoms of iodism occasion annoyance, tincture of grindelia, arsenic, or inhalations of pyridin or of compressed air, may be substituted.

If the asthma be the result of a diathesis of rheumatism, gout or malaria, or due to disease elsewhere, as in the nose or pharynx, treatment must first be directed to these etiological factors.

To these suggestions may be added a reference to the recommendation of euphorbia pilulifera made by Dr. M. Graham Tull, in the *MEDICAL AND SURGICAL REPORTER*, March 16, 1889, and May 18, 1889. This drug seems to have a powerful influence upon the course of asthma.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the *REPORTER*.]

THE TIME RELATIONS OF MENTAL PHENOMENA. By JOSEPH JASTROW, Professor of Psychology at the University of Wisconsin. pp. 60. Fact and Theory Papers. New York: N. D. C. Hodges, 1890.

The title of this work is sufficiently indicative of the nature of the subject discussed. A careful digest of the literature, with abundant references, is given. The outcome of investigations of this kind is in the direction of facilitating and shortening mental processes and improving methods of education.

The publication will have an interest for physiologists and psychologists.

A MANUAL OF AUSCULTATION AND PERCUSSION. Embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurism. By AUSTIN FLINT, M. D., LL. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc., etc. Fifth Edition. Thoroughly Revised by J. C. WILSON, M. D., Lecturer on Physical Diagnosis in the Jefferson Medical College, etc., etc. 8vo, pp. 268. Philadelphia: Lea Brothers & Co., 1890. Price, \$1.75.

Little need be said of a book which has passed through five editions. Of course physical diagnosis can be taught practically only on the living subject. It is impossible to convey adequate ideas of sensation or sound by description, but in conjunction with actual examination a systematic work renders valuable service. Of course, it must never be forgotten that

physical signs are but evidence of physical conditions. Alone they do not establish the diagnosis. In illustration, let us quote as to crackling sounds. They "are not uncommon in healthy persons, at the end of forced inspiration. The fact of their presence at both summits, and the absence of other morbid signs, are the grounds for not considering them as evidence of disease. They are found in health, especially if the binaural stethoscope be employed." Let the student beware of pathognomonic signs and symptoms.

Little is said of functional or hemic murmurs, often described in the course of anemia. We cannot reconcile ourselves to the commonly accepted explanation of these as due to changes in the blood; unfortunately, however, without being able to present a better one. A murmur may be generated by certain peculiarities of the channel through which fluid passes, giving rise to variations in resistance. It does not seem plausible, on the other hand, that variations in the density of the circulating medium should occasion adventitious sounds. We should look for the explanations of these so-called functional murmurs in some transient relation between circulation and respiration.

The little volume commends itself to students and physicians, and its revision by so careful a diagnostician and practitioner as Dr. Wilson enhances the value which is guaranteed by the name of its author.

A PRACTICAL TREATISE ON IMPOTENCE, STERILITY AND ALLIED DISORDERS OF THE MALE SEXUAL ORGANS. BY SAMUEL W. GROSS, A. M., M. D., LL. D., Professor of the Principles of Surgery and Clinical Surgery in the Jefferson Medical College, of Philadelphia, etc., etc. Fourth Edition. Revised by F. R. STURGIS, M. D. pp. 173. Philadelphia: Lea Brothers & Co., 1890. Price, \$1.50.

This work of the younger Gross is too well known to require extended comment. It has already taken its place among the classics on the subjects of which it treats. While medical literature teems with treatises on diseases of the female generative apparatus, prior to the work of Gross the derangements of the male sexual organs was by English writers a comparatively untrodden field. Even yet, probably, the general practitioner is as uninformed on this subject as though it were some obscure specialty. The work in question has done much to clear the medical atmosphere of a good deal of doubt and uncertainty. The numerous additions and comments of the reviser have been interpolated in the text in brackets. The general practitioner would be well repaid by a careful reading of a treatise which handles in a practical way subjects so common to every-day experience.

CORRESPONDENCE.

Electricity and Pelvic Surgery.

TO THE EDITOR:

Sir: In an article read before the Mississippi Valley Medical Association, 1890, Dr. Sutton says: "These teachings are rapidly becoming ancient history, despite the desperate efforts and exaggerated statements of the advocates of electricity as a curative agent. In regard to the latter, men who did not own a battery, and who had never seen a

fibroid tumor removed by an electric current, have written elaborate articles on the subject. Happily for the surgeons, who had about arrived at a consensus of opinion in the surgical methods in the treatment of these cases, these 'lightning bugs' have become in recent months less numerous."

This is sensible talk, with which no logical fault may be found. It is well for the science of gynecological electro-therapeutics that the unfitted and unlettered should drop out. That a man who never owned a battery, and who never saw a fibroid tumor removed, should make blatant claims for something of which he knew nothing, can be equalled only by the equally blatant condemnation of the surgeon who never owned a battery and who never saw a tumor removed. It is fortunate for medical advance that such as these should have screamed themselves so hoarse that their voices are no more heard in the land.

In the discussion of this paper, Dr. L. S. McMurtry, of Louisville, said: "Of late, electricity has been much vaunted in the treatment of fibroid tumors of the uterus. Dr. Sutton merely mentioned this agent in his paper, probably purposely, because he knows that electricity does nothing towards arresting or removing these tumors. A peculiar feature about the application of electricity in pelvic surgery is that those who a few years since denied the existence of certain forms of intra-pelvic disease are now foremost in the diagnosis and treatment of these same diseases by electricity. The application of electricity by puncture is fraught with great danger. The speaker has removed a uterine myoma by supra-vaginal hysterectomy, weighing sixteen and a half pounds, in which the entire anterior aspect, which had been accessible to electric treatment, was bound by dense adhesions to the omentum, intestines and abdominal wall, etc., etc."

Now there happens to be some peculiar points in this argument, which are salient characteristics of all similar arguments made by exclusive laparotomists, which are interesting bits of contemplation. I will first number the *curios*, and then take them up separately for examination.

1. "Dr. Sutton merely mentioned this agent," etc., etc.
2. "A peculiar feature about the application of electricity," etc.
3. "The application of electricity by puncture is fraught with great danger."

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4. "The speaker has removed a uterine tumor," etc.

1. Dr. Sutton, if acquainted with the statistics and history of gynecological electro-therapeutics, will not feel flattered at this surmise. The unimpeachable cases on record in which tumors have been arrested by electricity, are numerous and quite as reliable as are any statistics ever brought forward by any surgeon. If Dr. McMurtry does not know this—his argument would be akin to that of a "lightning bug" who never owned a battery—if he does know that such claims are made, but refuses to accept them because they antagonize pet theories of his own, it is not polite to give utterance to such doubts, since men of equally honorable standing with himself have seen and reported such cases. I have seen quite a number "reduced," and so can any one else see these cases if he will. I have never seen a fibroid *disappear entirely*, but other men have, and I believe them. It is "foolish talk" to reiterate all this, because all of it is a *fact*.

2. In no branch of medicine has a greater change taken place than in the pathology of female pelvic disease. What became of all of these modern high-sounding diseases, and of the women who had them, before the modern laparotomist was incubated? Who condemned abdominal surgery, not very long ago, but the surgeons themselves? Did women die of these diseases then, as they are dying since laparotomy has become a fashionable "fad?" It is nice of the doctor to give the "lightning bugs" credit for recognizing and diagnosticating these troubles, early in their history, and for establishing a conservative system of treatment.

3. This objection is a mere *will-o'-the-wisp* of the doctor's fashioning. I am speaking, of course, of a puncture in the hands of those competent to make use of it. In the clinic, conducted by Dr. Massey and myself, cases are punctured, high intensities being used, and the patients go to their homes one half hour afterwards. I do not advise this, but with such absolutely poor people, and with no beds at our disposal, we have no alternative. I have never seen any bad results following a fibroid puncture, and my experience has been an ample one. But even were it possible to show that such a process is attended with danger, what is the value of such an objection? Is not laparotomy—the alternative—a dangerous operation.

4. Dr. Baldy, than whom no man of equal age stands higher in the surgical literature of this country, told me only a few days ago, that he very rarely if ever had opened the abdomen for the removal of tumors, without finding extensive adhesions, and that a large majority of so-called pus tubes were simply cases of chronic adherent salpingitis. So that all this rumpus about adhesions amounts to nothing. Of course they are adherent—these big tumors—how could it be otherwise, and by what process of ratiocination does one reach the conclusion that adhesions are engendered by electricity?

In the *British Medical Journal*, Feb. 7, 1891, Drs. Williams and Champneys (see *Medical News*, Feb 21, especially the few introductory words of the editor) have an article on "The Operative Treatment of Chronic Disease of the Uterine Appendages" which merits careful reading. In the *Lancet* of January 31, 1891 (quoted in the MEDICAL AND SURGICAL REPORTER, February 21) will be found Sir Spencer Wells' reply to Mr. Lawson Tait. This is also most edifying reading. It might appear to a student of medicine as if the accusation of exaggeration, overstating the case, etc., etc., was really one which applied most directly to the surgeon. Sooner or later there must be reaction in favor of the protection of a woman's pelvic appendages. The time is surely near at hand, for the tread of its march can be heard even now, when it shall be criminal for the surgeon to boast of his recklessness in abdominal work, or to demonstrate before any society a "bucketful" of ovaries and tubes. It is a travesty to call this science, it stultifies intelligence to call it good surgery, and it outrages refinement and common sense to make such exhibitions. It is inexact to claim that operations of this kind cure the patient, when just the reverse is often the case. Many a woman suffers more acutely for years after such an operation than she did before it. I am glad of anything that cries a halt to it, and I am very especially glad that electricity has arisen to show us a better, safer and more conservative plan of treatment, and that the "lightning bugs" have been largely responsible for stemming the tide and turning it in another direction.

Yours truly,
HORATIO R. BIGELOW, M. D.
Philadelphia.

NOTES AND COMMENTS.

Solution of Shurley and Gibbes for Tuberculosis.

Dr. J. E. Clark, Professor of Chemistry and Physics, Detroit College of Medicine, gives in the *North American Practitioner*, February, 1891, the following account of the manufacture of the solutions recommended by Drs. Shurley and Gibbes.

The main difficulties encountered were the tendency of the gold solution to reduction, and the formation of abscesses following the iodine injection. It was found that both these obstacles were removed by scrupulous cleanliness in all manipulations, and securing absolute purity of the chemicals used. It is an unfortunate fact that the so-called C. P. chemicals, are often so only in name, and that the chemist who wishes to succeed must be an adept in purifying or manufacturing his own. In toxicological analysis where the purity of the reagents is of supreme importance, Dr. Clark has frequently found chloroform, ether, alcohol, etc., bought from good houses, containing impurities, which if undetected might easily have led to erroneous conclusions.

In making the solution of gold and sodium, the first step is the preparation of pure gold. Dr. Clark takes an English gold coin of recent date, which is composed of one part of copper and eleven parts of gold, and thus avoids the trouble of an insoluble chloride of silver which sometimes interferes where the alloy consists of part silver; to the coin in small pieces he adds eight parts of nitro-hydrochloric acid (four parts hydrochloric to one part nitric acid) chemically pure. This solution is then evaporated on the water bath with an excess of hydrochloric acid to nearly dryness, it is then treated with hot water and filtered to separate any chloride which might be present. To this solution is added a solution of pure oxalic or formic acid which will cause the precipitation of any gold which is present, in the form of a brown or greenish-black powder, in from one to forty-eight hours.

This powder is collected and boiled in dilute hydrochloric acid Sp. gr. 1.1, and then washed and dried. To the powder is added eight parts of nitro-hydrochloric acid and the solution evaporated on the water bath to nearly dryness, and allowed to crystallize. Too much heat here or too long evaporation is apt to give an aurous or an

acid chloride Au Cl or Au H Cl_2 , either of which must be avoided. The result, if the manipulation be properly conducted and the water of crystallization driven off, leaves ruby red prismatic crystals, and not the orange red crystalline needles of commerce.

The next step is the manufacture of the chloride of gold and sodium. The common salt usually contains portions of Ca Cl_2 , Mg Cl_2 , and Ca S O_4 . Dr. Clark either makes the salt from an anhydrous carbonate and hydrochloric acid, or dissolves it in four times its weight of pure water and adds to the filtered solution first Ba Cl_2 , and then Mg Co_3 , as long as any precipitate falls, filters and evaporates very slowly, skimming off the first crystals that form and rejecting them; those forming last are the pure salt.

Take of the gold chloride 85 parts, and the Na Cl 16 parts and mix each separately in a little pure water, stir together and allow to crystallize at a low temperature, which will give orange colored rhombic prisms. Similar precautions are necessary in the preparation of the iodine solution, as the iodine of commerce all contains more or less impurities, in the shape of graphite, chlorine, oxide of manganese and crude antimony. To prepare it perfectly pure on a small scale, place some in a small deep porcelain scale or earthenware dish, and cover it air-tight with a glass matrass filled with cold water, and apply to the dish a temperature of about 100° C. for two or three hours, allow to cool and the sublimate will be found attached to the under surface of the matrass. It is best, however, to expose the matrass after about 20 minutes' exposure to the heat and look for acicular prisms of a white color and pungent odor, if these are present they should be scraped off with a glass rod and rejected, afterwards the sublimation is to be carried on until it is complete. The fresh iodine is then to be kept in glass stoppered bottles.

To make a non-irritating solution of the iodine for hypodermic use it was found necessary to combine it with water and glycerine. This is accomplished through the medium of potassic iodide. A sufficient quantity, to just produce solution is added to the water and iodine. The glycerine is subsequently added. To purify the potassic iodide which contains a carbonate and iodate it is only necessary to dissolve in ethylic alcohol and filter. The carbonate and iodate are both insoluble in this solvent.

There are details in the way of manipulation which have not been mentioned, but these will occur to any one qualified to undertake their manufacture. Sterilized distilled water is used in all operations.

The question may arise as to why so much care is required in the manufacture of the solutions, and what harm can arise from the presence of minute quantities of organic matter or impurities? It has been found that the smallest quantity of organic matter in the gold solution will produce reduction on its exposure to light, whereas, if made in this manner it can be exposed to the light indefinitely. If a solution of nitrate of silver be made with like precaution it can be exposed in a clear glass bottle to direct rays of sunlight without change, showing that organic material is responsible for the reduction.

The chemical impurities in ordinary mixtures of these substances appear to me to have been the cause of much of the irritation and the abscesses which followed the primary experiments, as, since greater care has been exercised in the manufacture of the solutions, not a single abscess has been reported. During the last month Dr. Clark has supplied a large number of physicians, in the United States and in Canada, with the solution, without receiving one complaint.

Pain in some cases is said to follow the injection. This can be mitigated by being careful not to inject too deeply, if the muscle is reached pain often follows. Any dilution of the gold solution, unless with sterilized water, will produce a precipitate of the metallic gold.

On Dietetics of Chronic Nephritis.

In a preliminary note in the *Vratch*, No. 39, 1890, p. 889, Dr. Nikolai S. Zasiadko, of St. Petersburg, describes a very interesting group of elaborate clinical experiments which he has carried out in order to elucidate the influence of vegetable, animal and mixed dietary on albuminuria, the arterial tension, pulse, dropsy, temperature, body's weight and general nutrition in patients suffering from chronic Bright's disease. In all, ten patients were selected for the purpose. In each case the observation lasted a month, being divided into three equally-long periods, during one of which the patient was kept on a pure vegetable diet; during the second on an animal diet (with addition of

bread, from 50 to 200 grams a day), and during the third on a mixed one. The following are the main deductions drawn by Dr. Zasiadko from his researches.

1. Under the influence of a *vegetable* dietary, the daily quantity of albumin in the urine considerably decreases, the arterial tension is lowered, dropsy markedly increases, the pulse becomes slower, weaker and more easily compressible, the patient's general objective and subjective state grows worse (there appear general weakness, listlessness, disinclination to movements, etc.), the appetite gradually disappears.

2. Under the influence of an *animal* diet, the daily quantity of albumin in the urine markedly increases, the arterial tension rises, dropsy decreases, the pulse becomes more frequent and fuller, the bodily weight decreases *pari passu* with the disappearance of edemas, the daily amount of the urine, its proportion of solid constituents and specific gravity increase, the patient's general state markedly improves (the patient becoming cheerful and stronger, inclined to exercise, etc.).

3. A *mixed* dietary stands midway between a vegetable and an animal one, but comes nearer to the latter, as far as its influence on albuminuria is concerned.

4. The most prominent symptom of chronic nephritis is constituted by a morbid alteration of the blood which is characterized by an increased proportion of water and a decreased one of proteids, hemoglobin and morphological elements. Hence, to restore the normal properties of the blood and to improve the patient's general nutrition, it appears necessary to keep him on a liberal diet abounding in proteids. All apprehensions concerning the development of uremia from such regimen are void of foundation.

5. Contrary to various theoretical objections, brought forward by Lépine and Senator, animal food (butcher's meat, etc.,) does not cause any renal irritation in chronic nephritis and does not give rise to any exacerbation of the chronic renal process. In acute or subacute cases, however, the dietary can be resorted to only with certain caution.

6. An abundant proteid food usually augments the proportion of albumin in the urine, causing the so-called "dietetic albuminuria" (which, however, swiftly disappears on decreasing the proportion of proteids in the patient's food). In view of the fact, the said proportion of albumin alone cannot afford a criterion for appreciating the grav-

ity of the renal process. The patient's dietary must be always also taken in due consideration.

7. In chronic cases, a moderate exercise increases albuminuria but to a slight extent. Hence it can and must be allowed to such patients.

8. According to modern scientific teachings (Gull and Sutton, Dickinson, Meigs, Johnson, Rayer, Küskoff), chronic Bright's disease constitutes a general affection of the vascular system (and not a local lesion of the kidneys alone, as was formerly thought and taught). Hence, the practitioner of nowadays cannot possibly limit his efforts solely to controlling albuminuria, but must strive to improve the patient's general nutrition by means of an appropriate diet. Only such treatment can lead to improvement in the nutrition of the renal tissues.

9. The best dietary for chronic nephritic cases consists in a mixed (animal and vegetable) food. In chronic interstitial nephritis, accompanied by a general weakness, an animal food should predominate in the dietary, while in chronic parenchymatous nephritis vegetable food articles with milk should be in a relative excess.

10. Cooked or roasted Italian chestnuts markedly lower the proportion of albumin in the urine, which is, probably, dependent upon their containing tannic acid.

Starvation and Disease.

The importance of nutrition in the treatment as well as in the prophylaxis of disease has been recognized more especially since the time of Graves. It has long been known that hunger and deprivation increase the predisposition to disease.

The *Centralblatt für die Medicinischen Wissenschaften*, January 10, 1891, quotes from *Fortschritte der Medicin*, Nos. 18 and 19, 1890, the conclusions arrived at by Drs. Canalis and Morpurgo as a result of investigations conducted at the bacteriological laboratory at Rome. Pigeons, chickens and white rats, which enjoy a relative immunity to anthrax, were inoculated subcutaneously with anthrax, food being withdrawn before or after the operation.

It was found that pigeons normally enjoying immunity died of anthrax if food was withdrawn simultaneously with making the inoculation. Pigeons which had been starved for six days did not become infected if they

were again fed immediately after inoculation; but were infected, as a rule, if they had been starved for a period longer than six days. If food was withdrawn at the time of operation and resumed in two days, the disease was not aborted, though its progress was retarded. Thus it is seen that in pigeons the loss of immunity from anthrax is related rather to interruption in the circulation of nutritive material than to mere wasting of the tissues. If food was withdrawn on the eighth day after inoculation the animals still died of anthrax, a proof that the germs introduced may continue to live for a number of days in the organism and remain virulent. The loss of immunity for anthrax in starving pigeons is not to be explained by the reduction of temperature which takes place, as infection does not follow inoculation if the animals are kept in a bath at a correspondingly low temperature but at the same time are well fed.

To determine whether profound lesions of the digestive apparatus had any influence upon natural immunity, the pancreas, or portions of it, were removed. In these cases, the pigeons were, as a rule, susceptible to anthrax for a short time.

Chickens also became susceptible to anthrax by starvation. Most of the animals died if the inoculation was preceded for from three to seven days by withdrawal of food. In contrast to the pigeons, the chickens retained immunity if the starvation was begun just after inoculation.

White rats remained unsusceptible to anthrax infection in spite of starvation.

[These experiments are of a class which deserve reprobation. The point sought to be established is one which any intelligent man would consider *a priori* highly likely, and which has been abundantly established by clinical experience. The experiments of Canalis and Morpurgo were useless and cruel, and we mention them only to condemn them.—EDITOR OF REPORTER.]

Tritopine.

Merck's Bulletin, February, 1891, says: Tritopine ($C_{12}H_{14}N_2O_7$) is a new alkaloid discovered in opium last year by Dr. Kauder, chemist in E. Merck's Laboratories at Darmstadt.

Tritopine, a strong base, neutralizing mineral acids, occurs in opium in still smaller quantities than Protopine, recently

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described in that journal. It melts without decomposition at 182° C. [359 F.]. It is easily soluble in chloroform, but only with difficulty in ether. It crystallizes from alcohol in beautifully formed transparent prisms—each part of the alkaloid requiring, for solution, about 40 parts of boiling absolute alcohol.

Most of its salts are very easy soluble in water and in alcohol, as for instance the hydrochlorate, sulphate, nitrate and acetate. The bin-oxalate and hydro-iodate are crystalline. The latter is rather poorly soluble in water.

In regard to the toxic properties of triptopine, Dr. Kobert says that, like most of the opium alkaloids (for instance: Thebaine, Papaverine, and others), it exercises a spastic action, *in the manner of strychnine*; so that its application as a narcotic appears to be precluded. When given in lethal dose, its final action is exactly like that of strychnine—that is, *tetanic*.

Army Medical Board.

An announcement was recently made that an Army Medical Board would be in session in New York City during April next for the examination of candidates for appointment in the Medical Corps of the United States Army, to fill existing vacancies. At the time of that announcement there were only five vacancies to be filled. Recent Congressional legislation has, however, permitted the retirement of certain officers, so that there are now fourteen vacancies in the grade of assistant surgeon, with the probability that the number will be increased to seventeen by the time the examining board begins its labors.

As already stated, persons desiring to present themselves for examination by the Board will make application to the Secretary of War, before April 1, 1891, for the necessary invitation, stating the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from which they graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal knowledge, from at least two physicians of repute, as to professional standing, character and moral habits. The candidate must be between 21 and 28 years of age, and a graduate from a Regular Medical College, as evidence of

which, his Diploma must be submitted to the Board.

Further information regarding the examinations may be obtained by addressing C. Sutherland, Surgeon-General U. S. Army, Washington, D. C.

Meeting of the National Association of Railway Surgeons.

At the Kansas City meeting of the National Association of Railway Surgeons last year, it was decided to hold the next meeting at Buffalo May 7, 8 and 9 of this year. But, on account of the meeting of the American Medical Association being set for the same time, it has been decided to change those dates, and to hold the next meeting at Buffalo April 30 and May 1 and 2. To this meeting all Railway Surgeons are cordially invited. Railway Surgeons sending their names and addresses to the Corresponding Secretary will have a copy of the Constitution and Programme sent to them. Those wishing to read papers should send in the titles of their papers without delay. For further information inquiry should be made of A. G. Gumaer, M. D., Corresponding Secretary, Buffalo, N. Y.

Lion Flesh for Food.

The lion is eaten by some African races, but its flesh is held in small esteem. The Zulus find carrion so much to their liking, that, according to the late Bishop Colenso, they apply to food peopled by large colonies of larvae the expressive word "uborni," signifying in their uncouth jargon "great happiness." David Livingstone, that keen and accurate observer, reminds us that the aboriginal Australians and Hottentots prefer the intestines of animals. "It is curious," he says, "that this is the part which animals always begin with, and it is the first choice of our men." On this point it may be well to remind the civilized reader that the woodcock and the red mullet, or sea woodcock, are both eaten and relished without undergoing all the cleaning processes which most animals used for food among us generally experience to fit them for the table; so that our aversion to the entrails of animals is not absolute, but only one of degree. The hippopotamus is a favorite dish with some Africans when they can get this unwieldy and formidable river monster, and when young its flesh is good and palatable.

but with advancing years it becomes coarse and unpleasant. The Abyssinians, the amiable people to whom, according to the Italian prime minister, his countrymen proposed to teach wisdom and humanity, find the rhinoceros to their taste: so they do the elephant, which is also eaten in Sumatra. Dr. Livingstone describes the elephant's foot as delicious, and his praises will be echoed by many travelers in lands where that sagacious monster still lingers in rapidly decreasing numbers. "We had the foot," wrote the doctor, "cooked for breakfast next morning, and found it delicious. It is a whitish mass, slightly gelatinous, and sweet like marrow. A long march to prevent biliousness is a wise precaution after a meal of elephant's foot. Elephant's tongue and trunk are also good, and, after long simmering, much resemble the hump of a buffalo and the tongue of an ox; but all the other meat is tough, and, from its peculiar flavor, only to be eaten by a hungry man."

—*Science*, February 6, 1891.

Nu Sigma Nu Fraternity.

The annual convention of the Nu Sigma Nu fraternity was held at the Wayne Hotel, Detroit, February 13. The society bears the same relation to medicine that the Sigma Phi does to the law, being an under-graduates' secret order, which has chapters in several of the larger cities. The business of the convention in the afternoon, which was presided over by Dr. Waldo E. Clark, retiring grand *Aesculapius*, consisted of some revisions of the constitution and by-laws, and the election of the following officers for the ensuing year: Grand *Aesculapius*, R. E. L. Rogers, M. D., Pittsburgh, Pa.; Grand Galen, John L. Irwin, M. D., Detroit; Grand Herophilus, Don M. Campbell, M. D., Detroit; Grand Malpighi, Charles D. Strong, M. D., Brooklyn, N. Y.; Grand Hippocrates, F. W. Robbins, M. D., Detroit.

In the evening the Beta Chapter, of Detroit, gave its first annual banquet, at which the visiting delegates were present as guests.

Salol and the Naphthols.

The *Chemist and Druggist*, February 7, 1891, says: V. Demandre, a pharmacist of Dijon, recently read before his departmental pharmaceutical association, an interesting note suggested by what was at first a mere

prescription difficulty. Some time since, he received the following prescription:

R. Salol	0.50 grams
Naphthol alpha	0.10 "

For one cachet, send ten such.

On rubbing together the two chemicals in a mortar, a pasty mass resulted, turning to a thick oily liquid. The physician having been notified of the occurrence, the naphthol was left out of the prescription. But the Dijon pharmacist thought the case was worth looking into a little further. Instead of alpha naphthol, he tried beta naphthol with salol in the same proportion as before, and observed that the mixture remained a dry powder. (1) Hence his conclusions that salol is incompatible in powders with alpha naphthol, but quite compatible with the beta variety. (2) That the reaction, a very simple one, will be found useful to distinguish the two naphthols, as dealers are apt to sell one for the other, although their properties are far from being the same.

Mississippi Valley Medical Association.

The Mississippi Valley Medical Association will hold its seventeenth annual session at St. Louis October 14-16, 1891. A large attendance, a valuable programme and a good time are expected. The members of the medical profession are respectfully invited to attend.

For Painful Hemorrhoids.

One is sometimes sorely tried for the means of relieving the pain, tenesmus and itching of turgid hemorrhoids. Alvin (*Fortschritte der Krankenpflege*, January, 1891) states that a sponge saturated with water at a temperature of from 127° to 140° F., applied several times daily to the anal region, will mitigate these symptoms.

Notice to Surgeons of the National Guard.

Dr. Senn, of Milwaukee, Surgeon-General of Wisconsin, is desirous of obtaining the name and address of every surgeon of the National Guard in the United States for the purpose of taking the necessary preliminary steps towards the formation of a permanent National Association.